

## Curriculum Vitae

# Yuri Rodrigues

### Address:

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## Education

**Doctor of Philosophy (PhD)** — Electrical Engineering January 2018 – August 2021

*University of British Columbia, BC, Canada*

Thesis: ‘Microgrid Control and Stability Improvement Using Phasor Measurement Units (PMUs)’

Supervisors: Morad Abdelaziz, Liwei Wang

**Masters of Science (MSc)** — Electrical Engineering March 2016 – February 2017

*Federal University of Itajuba, MG, Brazil*

Thesis: ‘Studies of Balanced and Unbalanced Smart Grids with Participation of Renewable Energy’

Supervisor: A. C. Zambroni de Souza

**Bachelor of Science (BSc)** — Electrical Engineering January 2011 – December 2015

*Federal University of Itajuba, MG, Brazil*

Visiting student at the University of British Columbia, BC, Canada January 2014 – December 2014

**Technician** — Electronics January 2008 – December 2010

*Technical School Pandia Calogeras, RJ, Brazil*

**Apprentice Technician** — Process Control and Instrumentation January 2008 – December 2009

*National Service for Industrial Training, RJ, Brazil*

## Employment

**Assistant Professor** — Seattle Pacific University September 2021 – present

*Department of Engineering and Computer Science, WA, United States*

- 1) Designing and teaching multiple engineering and computer science courses focused on industry demands in association with research and development (R&D) skills.
- 2) Conducting original research work and developing innovative software solutions in the areas of microgrids, power systems, renewable energy and transportation electrification.

- 3) Establishing a research program on modern electric power systems involving undergraduate students and targeting interdisciplinary projects.
- 4) Collaborating with industry partners to bridge gaps between engineering theory and energy supply practices in the state of Washington and the US national grid.
- 5) Collaborating with International Research Groups on research applications of advanced monitoring for phasor measurement units (PMUs).
- 6) Advancing knowledge through the dissemination of relevant research results in high impact journals, premier conference proceedings, technical seminars and industry reports.
- 7) Developing the curriculum of power and energy courses for the electrical and computer engineering program.
- 8) Serving on the advisory board of Seattle City Light Integrated Resource Planning.
- 9) Teaching the following courses:

<b>Course</b>	<b>Name</b>	<b>Credit</b>	<b>Delivery</b>
CSC1130	<i>Beginning Programming</i>	5	Fall 2022
CSC2230	<i>Computer Programming for Engineers</i>	5	Winter 2022
CSC3750	<i>Computer Architecture and Organization</i>	5	Winter 2022, Winter 2023
EE1502	<i>Electrical and Computer Engineering Fundamentals</i>	1	Spring 2022
EE2726	<i>Electric Circuits I</i>	5	Fall 2021, Fall 2023
EE2726-lab	<i>Electric Circuits I Laboratory</i>		
EE2728	<i>Electric Circuits II</i>	5	Fall 2021
EE2728-lab	<i>Electric Circuits II Laboratory</i>		
EE3500	<i>Power System Fundamentals</i>	5	Winter 2022, Winter 2023
EE3721	<i>Electronics I</i>	5	Winter 2022, Spring 2024
EE3721-lab	<i>Electronics I Laboratory</i>		
EE3722	<i>Electronics II</i>	5	Spring 2022, Spring 2023, Fall 2024
EE3722-lab	<i>Electronics II Laboratory</i>		
EE3730/ EGR3810	<i>Engineering Design/ General Engineering Design</i>	3	Spring 2024
EE4911	<i>Washington State FE Preparation for Electrical Engineers</i>	2	Winter 2022, Fall 2023
EE4950	<i>Special Topics in Electrical Engineering (Microgrids)</i>	3	Spring 2023
UCOL1000	<i>University Colloquium</i>	1	Fall 2022

**Technical Advisor – Board Member** — Seattle City Light  
*Power Management Division, WA, United States*

November 2021 – present

- 1) Supporting the Seattle City Light Integrated Resource Plan (IRP) decision-making process in light of the power grid infrastructure limitations and modernization opportunities.
- 2) Executing portfolio analysis to meet resource adequacy needs including supply and demand-side resources, transmission sensitivity, load and generation forecast uncertainties, transportation electrification scenarios, climate change, energy efficiency targets, and capacity costs.

- 3) Evaluating new technologies on the supply and demand side for improving portfolio performance considering policy constraints and risk mitigation while targeting the lowest reasonable cost.

**Research Engineer/PhD Candidate** — University of British Columbia  
*School of Engineering, BC, Canada*

January 2018 – August 2021

- 1) Developed original research work and innovative solutions in the areas of power systems and distributed energy resources.
- 2) Proposed novel automatic generation control (AGC) solutions based on phasor measurement units (PMUs) for the improvement of modern multi-area power systems resilience.
- 3) Proposed novel frequency and voltage controller based on PMUs for distribution networks operating in islanded mode.
- 4) Worked on a set-up for improving the feasibility of power systems towards 100% renewable penetration based on advanced generation control and use of flexible resources to improve all stages of frequency regulation process, i.e. arrest, rebound and recovery, considering North American Electric Reliability Corporation (NERC) performance requirements.
- 5) Established a new perspective denoted conservation frequency reduction (CFR) for islanded microgrid frequency of operation adjustment based on the availability of local resources to enhance islanded microgrids autonomy capacity.
- 6) Worked on programming dynamic simulation algorithms for interconnected power systems and islanded microgrids frequency regulation, voltage control and stability analysis.
- 7) Developed a frequency dependent power flow tool for interconnected multi-area power systems and unbalanced islanded microgrids autonomy capacity investigation in the presence of different types of distributed energy resources (DERs).
- 8) Modeled dynamic and static synchronous generators, renewable resources, energy storage systems, plug-in electric vehicles and different load types. As well as, wide-area management and control systems (WAMS - WAMC) powered by PMUs, and traditional supervisory control and data acquisition (SCADA) systems.
- 9) Worked on mathematical stability proofs and steady-state analysis for the proposed linear and non-linear controllers.
- 10) Quantified proposed synchrophasor controllers ability to reduce the necessary amount of frequency reserves to ensure power system operation within permissible limits.

**Sessional Instructor (part-time)** — University of British Columbia  
*School of Engineering, BC, Canada*  
*Irving K. Barber School of Arts and Sciences, BC, Canada*

May 2021 – August 2021

May 2019 – July 2019

- 1) Prepared and delivered lectures and presentations to explain different subjects of computer science to undergraduate students.
- 2) Updated the course syllabus for summer section reflecting new course calendar, covered content, evaluation process for quizzes, labs, exams and approval criteria.
- 3) Created the course CANVAS website including quizzes, assignments, exams as well as lecture notes and engaging presentations to meet the learning needs and abilities of all students.
- 4) Updated lecture notes and lab manuals to guide students learning process and engage students in performing experiments and reporting results.

- 5) Supervised and trained a teaching assistant for delivering the lab components of the course and providing office hours.
- 6) Used multiple teaching strategies and technology resources to engage and retain students in class attention, including digital presentations, hand writing, interactive problem solving, small group projects and classroom-wide activities.
- 7) Conducted inquire based lectures to actively engage students, assist in the learning process, and help the contextualization of the theories under consideration in real world applications.
- 8) Prepared marking and evaluation schemes for the different components of the courses instructed.
- 9) Served as sessional instructor for:

APSC 256 (*Numerical Methods for Analysis*), Summer 2021 (1)\*, Credit-value: 3

APSC 255 (*Electric Circuits and Power*), Summer 2021 (2)\*, Credit-value: 3

COSC 122 (*Computer Fluency*), Summer 2019 (1)\*, Credit-value: 3

\*Term (1) or (2)

**Teaching Assistant (part-time)** — University of British Columbia  
*School of Engineering, BC, Canada*

September 2020 – April 2021  
 September 2019 – June 2020  
 September 2018 – December 2018

- 1) Preparing and delivering well-received labs for electrical, civil and mechanical engineers.
- 2) Developing and implementing engaging lab sessions in different subject areas of engineering and energy systems.
- 3) Built and sustained interactive classrooms that involves students in activities, allowed time for reflection and encouraged brainstorming, classroom discussions, group projects and presentations.
- 4) Communicated effectively with students during face-to-face lectures, office hours and via email or phone calls.
- 5) Guided and advised students in their course, further education and future careers.
- 6) Evaluated quizzes and lab reports, assigned grades, and marked assignments and exams for classes of up to 350 students.
- 7) Served as a teaching assistant for different courses:

APSC 246 (*System Dynamics*), Summer 2020 (1)\*, Credit-value: 3

APSC 255 (*Electric Circuits and Power*), Winter 2019 (2)\*, Winter 2020 (2)\*, Credit-value: 3

APSC 256 (*Numerical Methods for Analysis*), Winter 2018 (1), Winter 2019 (1)\*, Winter 2020 (1)\*, Credit-value: 3

ENGR 350 (*Linear Circuit Theory Computational*), Winter 2018 (1), Winter 2019 (1), Winter 2020 (1)\*, Credit-value: 3

\*Term (1) or (2)

**Graduate Research Assistant** — Federal University of Itajuba  
*Institute of Electrical Systems and Energy, MG, Brazil*

March 2016 – October 2017

- 1) Proposed a new approach for electric vehicle operation in G2V and V2G modes compiling its data at different microgrid levels to support centralized control actions during islanded operation.
- 2) Developed a novel demand management policy considering the functional period of system facilities seeking to maximize islanded microgrids service capacity.

- 3) Programmed a software to analysis studies of balanced and unbalanced smart grids operating in isolated mode or connected to the main network with insertion of renewable generation and electrical vehicles.
- 4) Modelled static controllers for voltage and frequency regulation, load shedding action and operation of electric vehicles in G2V and V2G modes.
- 5) Designed a supervisory system with graphical interface for the developed microgrid operation analysis software.
- 6) Conducted different assessment studies to quantify the impact of distributed generation, topological configurations, demand management and electric vehicles in islanded microgrids operation.
- 7) Served as teaching assistant for:

EC 301 (Computational Methods & Applied Mathematics) – 2017 (1)\*\*, Credit-value: 3

\*\*Semester (1) or (2)

**Summer Engineering Intern** — Odebrecht Oil & Gas

July 2015 – August 2015

*Offshore Maintenance Division, RJ, Brazil*

- 1) Worked in the maintenance department of onshore and offshore Platforms for oil and gas exploration.
- 2) Accompanied UO-BC contractor projects in its different modalities of service for oil and gas exploiting units' maintenance.
- 3) Supervised the manufacturing process and logistics of repair parts for offshore oil exploration platforms.
- 4) Developed a methodology for optimizing the production process based on the concepts of Lean Manufacturing.

**Visiting Undergraduate Research Assistant** — University of British Columbia May 2014 – August 2014

*School of Engineering, BC, Canada*

- 1) Worked in partnership with Enbala Power Networks (industry partner) in the design of a software tool for determining harmonic losses generated by households.
- 2) Modeled typical Canadian electrical distribution system for different social economic groups including distribution network topology, residential loads and consumption patterns.
- 3) Determined the harmonic losses generated by households for different economic groups including high, average and low income families.
- 4) Performed technical feasibility analysis of implementing local filter for harmonic losses reduction.

**Mentoring Program for Electrical Engineers (part-time)** —

February 2012 – December 2013

*Federal University of Itajuba, MG, Brazil*

- 1) Implemented several intelligent and adaptive methods including immunological systems, neural network, fuzzy sets, neurofuzzy, and tangent vector technics;
- 2) Co-designed and installed a photovoltaic system for lighting the entrance of the Institute of Electrical Systems and Energy building.
- 3) Volunteered in the installation of emergency lighting for the nursing home Lar da Providencia, Itajuba.
- 4) Developed research, teaching and extended learning activities at undergraduate level in the electrical engineering program. Served as teaching assistant for lectures, labs and workshops:

EEL 051 (General Electrotechnics II) – 2013 (2)\*\*, Credit-value: 3

ELE 413 (General Electrotechnics Laboratory II) – 2013 (2)\*\*, Credit-value: 3

Workshop (Neural Networks in Artificial Intelligence) – 2013 (2)\*\*, Credit-value: N/A

**Electronics Technician Intern (part-time) —**

February 2010 – December 2010

*Companhia Siderúrgica Nacional – CSN, RJ, Brazil*

- 1) Worked in preventive, predictive and corrective maintenance of instrumentation equipment in the process of steel manufacturing; departments of hardening, trimming edges and annealing of steel coils.
- 2) Monitored, adjusted, calibrated and replaced plants controllers, sensors, actuators and PLCs during online and offline production line operation.
- 3) Tuned P, PI, PID and On/Off controllers for temperature, level, flow and pressure control meshes operating isolated and/or in cascade mode.
- 4) Supported the preparation process and execution of scheduled production line stop, programmed maintenance and production line commissioning. Participating in weekly workplace safety meetings.

**Process Instrumentation and Control Apprentice (part-time) —**

January 2008 - December 2009

*Companhia Siderúrgica Nacional – CSN, RJ, Brazil*

- 1) Trained for specification, calibration and replacement of field instruments (plant controllers, sensors, actuators and PLCs) in industrial plants.
- 2) Designed closed-loop and open-loop controls (P, PI, PID and On/Off) for temperature, level, flow, pressure and speed control meshes operating isolated and/or in cascade mode.
- 3) Developed SCADA supervisory using Fieldbus, Profibus and Modbus technologies.
- 4) Served as the unit representative in the state industrial skills competition, achieving second place. A 5-days competition testing all above-mentioned skills held on an industrial test-bed representative of four industrial control processes: level, flow, pressure and temperature.

## Recognition and Awards

**Theological Integration Fellowship (TIF) —**

September 2022 – present

Seattle Pacific University, WA, United States

This program provides seminary training to faculty members who wish to better integrate their faith with their disciplines and professionally enhance their teaching and scholarship.

**Intel FPGA Academic Program —**

Nov. 2024

Intel Corporation, CA, United States

Hardware and software tools donation for developing advanced FPGA laboratory for education and research programs at Seattle Pacific University focused on Machine Learning (ML) and Deep Learning (DL) applications.

**Faculty Research Grant —**

May 2023 – June 2024

Seattle Pacific University, WA, United States

Funded research project on “Development of Electric Loads Fingerprint-like Characteristics for Cyber-attacks Detection in Power Grids”, number: 2023-1216.

**Faculty Research and Scholarship Grant** —  
Seattle Pacific University, WA, United States

May 2022 – June 2023

Funded research project on “Cyber-Physical Control and Security for Modern Power Systems Using Advanced Monitoring Solutions”.

**SEL Equipment Donation Program** —  
Schweitzer Engineering Laboratories, WA, United States

May 2022

Equipment donation for developing power systems education and research programs at Seattle Pacific University (SPU). Development of an advanced industrial setup for power systems automation, control, protection, monitoring, and operation.

**Faculty Governance Leadership CoP Fellow** —  
Seattle Pacific University, WA, United States

February 2022

Training in shared governance for faculty members envisioning leadership positions within SPU.

**Collaborative Online International Learning (COIL) Fellow** —  
Seattle Pacific University, WA, United States

January 2022

Development of a Collaborative Online International Learning course with an international partner at SPU.

**Start-up Fund (Principle Investigator (PI), Individual)** —  
Seattle Pacific University, WA, United States

September 2021

Development of a sustainable energy laboratory for R&D on sustainable energy systems applications.

**Great Minds in STEM Grantee** —  
Great Mind in STEM, CA, United States

August 2021

Development of a sustainable energy laboratory for R&D on sustainable energy systems applications.

**Research Contract (Collaborator, Group)** —  
CEATI International, Quebec, Canada

March 2021 – July 2021

Title: ‘PSPO RFP 20.03 - Efforts within NERC and FERC on Transmission Resiliency Improvements’.

**Graduate Dean’s Thesis Fellowship** —  
University of British Columbia, BC, Canada

Winter 2020

This is a merit-based fellowship that is awarded to full-time, thesis-based PhD students that are approaching their final term and are focusing on the completion of their thesis.

**University Graduate Fellowship** —  
University of British Columbia, BC, Canada

Winter 2019, Winter 2020

This award is disbursed by the faculty of engineering in recognition of special achievements of graduate students.

**Graduate Student Travel Fund** —  
Federal University of Itajuba, MG, Brazil

March 2016 – October 2017

This award is provided by the university to support graduate students attendance to national and international conferences. The award value is referred to all granted supports: CBPE, INDUSCON, ICEEP, CBQEE.

**Doctorate Graduate Research Scholarship** —  
Brazilian Federal Agency for Support and Evaluation of Graduate Education – CAPES, DF, Brazil

March 2017 – October 2017

This scholarship is offered by the Brazilian government Research Agency to support first-class full-time students in research based doctorate graduate programs.

**Masters Graduate Research Scholarship** —  
Research Supporting Foundation of Minas Gerais State – FAPEMIG, MG, Brazil

March 2016 – February 2017

This scholarship is offered by the State of Minas Gerais Research Foundation to support first-class full-time students in research based masters graduate programs.

**Science without Borders** —  
Brazilian National Council for Scientific and Technological Development – CNPq, DF, Brazil

January 2014 – December 2014

This scholarship is awarded by the Brazilian government Research Agency to students with first-class standings to support the internationalization of undergraduate programs.

**Mentoring Program for Electrical Engineers** —  
Ministry of Education – MEC, DF, Brazil

February 2012 – December 2013

This studentship is provided by the Brazilian Ministry of Education as a merit scholarship awarded to students with first-class standings to develop research and tutoring activities.

**Medalist Industrial Skills Olympics** —  
National Service for Industrial Training, RJ, Brazil

Summer 2009

Second place at the State level competition in industrial processes control and instrumentation skills. This competition is a 5-days skill challenge in industrial trades, qualifier for the international World Skills.



# Publications

## Journal Articles:

- J1) MONTEIRO, L. F.; **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; “Empowering Microgrids for Sustainable Transportation Electrification: A Comprehensive Methodology for Resource Adequacy and Grid Resilience,” *Electr. Power Syst. Res.*, vol. 239, 111176, Feb. 2025.
- J2) SRIVASTAVA, A.; **et. al.**, “Distribution System Behind-the-Meter DERs: Estimation, Uncertainty Quantification, and Control, *IEEE Trans. Power Syst.*, vol. 40, no. 1, pp. 1060-1077, May. 2024.
- J3) MONTEIRO, L. F.; **RODRIGUES, Y. R.**; SOUZA, A. C. Z., "Cybersecurity in Cyber–Physical Power Systems," *Energies*, vol. 16, n. 10, 4556, Jun. 2023.
- J4) VILAISARN, Y.; **RODRIGUES, Y. R.**; ABDELAZIZ, M; CROS, C., "A Deep Learning based Multi-Objective Optimization for the Planning of Resilience Oriented Microgrids in Active Distribution System," *IEEE Access*, vol. 10, pp. 84330-84364, Aug. 2022.
- J5) **RODRIGUES, Y. R.**; ABDELAZIZ, M.; WANG, L.; Kamwa, I., "PMU Based Frequency Regulation Paradigm for Multi-Area Power Systems Reliability Improvement," *IEEE Trans. Power Syst.*, vol. 36, no. 5, pp. 4387-4399, Sep. 2021.
- J6) **RODRIGUES, Y. R.**; ABDELAZIZ, M.; WANG, L., "Resilience-Oriented D-PMU based Frequency Controller for Islanded Microgrids with Flexible Resources Support," *IEEE Trans. Power Deliv.*, vol. 36, no. 4, pp. 2320-2331, Aug. 2021.
- J7) **RODRIGUES, Y. R.**; ABDELAZIZ, M.; WANG, L., "D-PMU Based Distributed Voltage and Frequency Control for DERs in Islanded Microgrids," *IEEE Trans. Sustain. Energy*, vol. 12, no. 1, pp. 451-468, Jun. 2020.
- J8) **RODRIGUES, Y. R.**; ABDELAZIZ, M.; WANG, L., "D-PMU Based Secondary Frequency Control for Islanded Microgrids," *IEEE Trans. Smart Grids*, vol. 11, no. 1, pp. 857-872, Jan. 2020.
- J9) MONTEIRO, M. R.; **RODRIGUES, Y. R.**; ABDELAZIZ, M.; WANG, L.; SOUZA, A. C. Z., "Area-Based Voltage Stability Support Using Flexible Resources," *Electr. Power Syst. Res.*, vol. 186, Sep. 2020, Article 106384.
- J10) MONTEIRO, J. R.; **RODRIGUES, Y. R.**; MONTEIRO, M. R.; SOUZA, A. C. Z.; FULLY, I. L.; “Intelligent RMPS Allocation for Microgrids Support during Scheduled Islanded Operation”, *IEEE Access*, vol. 8, pp. 117946-117960, Jun. 2020.
- J11) MONTEIRO, M. R.; ALVARENGA, G. F.; **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; LOPES, B. I. L.; PASSARO, M.; ABDELAZIZ M., "Network partitioning in coherent areas of static voltage stability applied to security region enhancement," *Int. J. Electr. Power Energy Syst*, vol. 117, May 2020, Article 105623.
- J12) **RODRIGUES, Y. R.**; MONTEIRO, M. R.; ABDELAZIZ, M.; WANG, L.; SOUZA, A. C. Z.; RIBEIRO, PAULO F.; "Improving the Autonomy of Islanded Microgrids Through Frequency Regulation," *Int. J. Electr. Power Energy Syst.*, vol. 115, Feb. 2020, Article 105499.

J13) **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; RIBERIRO, P. F., "An inclusive methodology for Plug-in electrical vehicle operation with G2V and V2G in smart microgrid environments," *Int. J. Electr. Power Energy Syst.*, vol. 102, pp. 312-323, Nov. 2018.

J14) SOUZA, M. F. Z.; **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; LOPES, I. L.; ALMEIDA, A. B., "Load margin assessment of systems with distributed generation with the help of a neuro-fuzzy method," *IET Renew. Power Gen.*, vol. 9, no. 4, pp. 331-339, Apr. 2015.

### Conference Proceedings:

C1) TANG N.; LANDAS N.; **RODRIGUES Y. R.**; MONTEIRO M. R., "Industry state-of-art and opportunities for the use of drones in smart grids inspections," International Symposium on Power Electronics, Electrical Drives, Automation and Motion, Italy – Ischia, 2024.

C2) AL-NA'AR, M.; **RODRIGUES, Y. R.**; MONTEIRO, L. F.; SOUZA, A. C. Z.; "Frequency Regulation Paradigm for Hosting Capacity Enhancement Based on Transportation Electrification," International Conference and Exhibition on Electricity Distribution, Portugal - Porto, 2022.

C3) **RODRIGUES, Y. R.**; MONTEIRO, M. R., "Resilience-triggered Synchrophasor Based Frequency Controller for Highly Disruptive Events Capitalizing on Transportation Electrification Support," International Conference and Exhibition on Electricity Distribution, Portugal - Porto, 2022.

C4) **RODRIGUES, Y. R.**, "Multidimensional Design Process for Modern Engineering Applications: A Smart Grid Design Case Study," ASEE Zone IV Conference, Canada - Vancouver, 2022.

C5) **RODRIGUES, Y. R.**; ABDELAZIZ, M., "Event-Triggered D-PMU based Frequency Controller for Islanded Microgrids," International Conference and Exhibition on Electricity Distribution, Germany - Berlin, 2020.

C6) FIORESE, A.; **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; PASSARO, M., "On Effects of PEVs in Islanded Microgrids Resilience," IEEE PES Innovative Smart Grid Technologies Conference-Latin America, Brazil - Gramado, 2019.

C7) **RODRIGUES, Y. R.**; MONTEIRO, M. R.; SOUZA, A. C. Z.; RIBEIRO, P. F.; WANG, L.; EBERLE, W., "Adaptative Secondary Control for Energy Storage in Island Microgrids," IEEE PES General Meeting, USA - Portland, 2018.

C8) MONTEIRO, M. R.; **RODRIGUES, Y. R.**; MINAMI, J. P. O. S.; SOUZA, A. C. Z.; RIBEIRO, P. F.; BONATTO, B. D.; WANG, L.; EBERLE, W., "Unbalanced Frequency Dependent Load Flow for Microgrids," IEEE PES General Meeting, USA - Portland, 2018.

C9) **RODRIGUES, Y. R.**; DE SOUZA, M. F. Z.; DE SOUZA, A. C. Z.; RIBEIRO, P. F.; BONATTO, B. D., "Influence of load types and renewable generation in microgrids load margin." 6th International Conference on Clean Electrical Power (ICCEP), Italy - Santa Margherita, 2017.

C10) **RODRIGUES, Y. R.**; MONTEIRO, M. R.; SOUZA, A. C. Z.; RIBEIRO, P. F.; EBERLE, W.; METCALFE M., "Impact of the Load Usage Context on Harmonic Generation." Conferência Brasileira Sobre Qualidade de Energia Elétrica - CBQEE, Brazil - Curitiba, 2017.

C11) MONTEIRO, M. R.; **RODRIGUES, Y. R.**; COSTA, V. N.; SOUZA, A. C. Z., “Determination of Control Actions with Grids Partitioning,” 12th Latin-American Congress on Electricity Generation and Transmission, Argentina - Mar del Plata, 2017.

C12) **RODRIGUES, Y. R.**; SOUZA, A. C. Z.; RIBEIRO, P. F., “Static-dynamic analysis of the islanding processes, isolated operation and reconnection of microreds with different levels of control,” 12th Latin-American Congress on Electricity Generation and Transmission, Argentina - Mar del Plata, 2017. – Portuguese.

C13) **RODRIGUES, Y. R.**; SOUZA, M. F. Z.; ZAMBRONI DE SOUZA, A. C.; LOPES, I. L.. “Unbalanced Load Flow for Microgrids Considering Droop Method,” Power Engineering Society General Meeting, Boston, 2016.

C14) **RODRIGUES, Y. R.**; MONTEIRO, M. R.; MONTEIRO, J. R.; NUNES, F. B.; RIBEIRO, P. F.; SOUZA, A. C. Z., “Impact of Non-Linear Loads and Renewable Generation on a University Research Building,” 17<sup>th</sup> International Conference on Harmonics and Quality of Power, Brazil - Belo Horizonte, 2016.

C15) **RODRIGUES, Y. R.**; MONTEIRO, M. R.; RIBEIRO, P. F.; ZAMBRONI DE SOUZA, A. C., “Demand Profile Processing Methodology for Information Acquisition,” 12<sup>th</sup> IEEE/IAS International Conference on Industry Applications, Brazil - Curitiba, 2016.

C16) **RODRIGUES, Y. R.**; SOUZA, M. F. Z.; ZAMBRONI DE SOUZA, A. C., “Considerations on islanded microgrid frequency control capability within different generation configurations,” 12<sup>th</sup> IEEE/IAS International Conference on Industry Applications, Brazil - Curitiba, 2016.

C17) **RODRIGUES, Y. R.**; MONTEIRO, M. R. ; SOUZA, A. C. Z. ; PINHEIRO, C. A. M., “Determination of stable operational conditions for Electrical Power Systems: An neural network approach,” X Congresso Brasileiro de Planejamento Energético, Brazil - Gramado, 2016. – Portuguese.

C18) **RODRIGUES, Y. R.**; EBERLE W.; METCALFE M.; SOUZA, A. C. Z., “Impact of appliances harmonic content in microgrid environments,” ISGT Latin America, Uruguay - Montevideo, 2015.

C19) SOUZA, M. F. Z.; **RODRIGUES, Y. R.**; ALMEIDA, A. B.; LOPES, I. L.; SOUZA, A. C. Z., “A Neuro-Fuzzy Method as Tool for Voltage Security Assessment of Systems with Distributed Generation,” 3<sup>rd</sup> Renewable Power Generation Conference (RPG 2014), Italy - Napoles, 2014.

C20) **RODRIGUES, Y. R.**; SOUZA, M. F. Z.; SOUZA, A. C. Z.; LOPES, I. L.; OLIVEIRA, D. Q., “Recharging Process of Plug in Vehicles by Using Artificial Immune System and Tangent Vector,” 22<sup>nd</sup> International Conference and Exhibition on Electricity Distribution, Sweden - Stockholm, 2013.

### **Book Chapters:**

B1) PHAM, D.; MONTEIRO M. R.; **RODRIGUES, Y. R.**, "Standards and grid codes for distributed energy storage employment," Distributed Energy Storage in Urban Smart Grids, 1ed. Institution of Engineering and Technology (IET), pp. 149-171, 2023.

B2) **RODRIGUES, Y. R.**; ZAMBRONI DE SOUZA, A. C.; RIBERIRO, P. F., "Effects of Electrical Infrastructures in Grid with High Penetration of Renewable Sources," Decision Making Applications in Modern Power Systems, 1ed. Elsevier, pp. 201-222, 2020.

- B3) MONTEIRO M. R.; **RODRIGUES, Y. R.**; ZAMBRONI DE SOUZA, A. C.; RIBERIRO, P. F., "PSO Applied to Reactive Power Redispatch for Loss Reduction Considering Renewable Generation," Decision Making Applications in Modern Power Systems, 1ed. Elsevier, pp. 247-267, 2020.
- B4) **RODRIGUES, Y. R.**; RIBERIRO, P. F., "Case studies in saving electricity in Brazil," Application of Smart Grid Technologies, 1ed. Elsevier, pp. 195-227, 2018.
- B5) RIBERIRO, P. F.; ZAMBRONI DE SOUZA, A. C.; **RODRIGUES, Y. R.**, "Energy storage systems: technology, integration and market," Energy Storage at Different Voltage Levels: Technology, integration, and market aspects, 1ed. Institution of Engineering and Technology (IET), pp. 31-57, 2018.
- B6) **RODRIGUES, Y. R.**, "The Load Flow Method for Balanced and Unbalanced Microgrids Able to Operate Islanded and Connected to the Main Grid," Microgrids: Design, Applications and Control. 1ed. New York: Nova Science, pp. 1-38, 2018.
- B7) **RODRIGUES, Y. R.**; RIBEIRO, P. F.; SOUZA, A. C. Z., "The evolution of the consumer in prosumer: the path and role of smart grids towards energy efficiency and demand response," Smart Cities and Smart Grids in a multidisciplinary perspective. 1ed. Rio de Janeiro: Interciência, 2018. – Portuguese.
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